What is claimed is:

1.   A method of establishing a data connection on a wireless data network, the method comprising:

        determining that no data connection to the wireless data network is established;

5   initializing a back off timer based on a previous number of connection requests;

        automatically transmitting a connection request to the wireless data network upon expiry of the back off timer; and

        establishing a data connection if the transmitted connection request is accepted by the wireless data network.

10   2.   The method of claim 1, wherein the wireless data network is a CDMA2000 network.

3.   The method of claim 2, wherein the step of determining that no data connection is established includes receiving a refusal of service message from the wireless data network.

4.   The method of claim 3, wherein the refusal of service message is a retry order.

15   5.   The method of claim 3, wherein the refusal of service message is a reorder order

6.   The method of claim 3, wherein the refusal of service message is an intercept message and the connection request is automatically transmitted upon detection of a new wireless data network.

7.   The method of claim 1, wherein initializing the back off timer is based on a 20 random seed.

8.   The method of claim 7, wherein the back off timer is initialized to a time greater than or equal to any back off timer time calculated after a last established data connection.

9.   The method of claim 4, wherein initializing the back of timer is based on a retry delay specified by the retry order.

10.   The method of claim 9, wherein the back off timer is initialized to a time greater than or equal to the retry delay.

11.   The method of claim 2, wherein the connection request is an Origination Message.

12.   A method of automatically re-establishing a data connection on a wireless data
5   network, comprising:

        determining a data connection status upon the expiry of a service check timer;

        automatically transmitting a connection request if the data connection is determined to be lost; and

        re-establishing the data connection if the transmitted connection request is
10   accepted by the wireless data network.

13.   The method of claim 12, wherein the step of determining the data connection status is preceded by initializing the service check timer.

14.   The method of claim 12, wherein the step of automatically transmitting the connection request is performed upon expiry of a back off timer.

15   15.   The method of claim 14, wherein the back off timer is initialized to a value based on a retry delay specified by a received Release Order.

16.   The method of claim 12, wherein the step of determining the data connection status includes comparing assigned network resources to default values.

17.   The method of claim 16, wherein the step of comparing includes determining that
20   no data connection is established when an assigned Internet Protocol address is set to 0.0.0.0.

18.   The method of claim 12, including a step of forcing premature expiry of the service check timer upon receipt of a Release Order.

19.   The method of claim 18, wherein the Release Order is a Point-to-Point-Protocol
25   termination request.

20.   The method of claim 12, wherein the connection request is an Origination Message.

21.   A mobile device for establishing and maintaining a data connection to a wireless data network, the mobile device comprising:

        a back off timer for timing a back off period;

        a service check timer for timing a service check period; and

        a connection manager for determining a data connection to the wireless network is established at expiry of the service check timer, for resetting the service check timer upon its expiry if a connection is established, for transmitting connection requests to the wireless network upon initialisation, upon expiry of the back off timer and upon determination that the established data connection has been lost, and for resetting the back off timer in response to receipt of a connection rejection from the wireless network.

22.   The mobile device of claim 21, wherein the wireless data network is a CDMA2000 network.

23.   The mobile device of claim 22, wherein the connection manager includes means to reset the back off timer in response to the receipt of a Retry Order, such that the back off timer is greater than, or equal to, a retry delay specified in the Retry Order.

24.   The mobile device of claim 21, wherein the connection manager includes an accumulator for tracking consecutive rejections of service, and means to reset the back off timer in accordance with the number of consecutive rejections.

25.   The mobile device of claim 22, wherein the connection manager includes means for causing premature expiry of the service check timer in response to the receipt of a Release Order.